

Inventor: BOWE ET AL
U. S. Serial No. 10/566,657
U.S. National Stage Application of
International Application No. PCT/GB2004/003280
Attention: DO/EO/US

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A process for coating a metal substrate with a layer of ceramic suitable as a support for a Fischer-Tropsch catalyst, the method comprising forming a slurry containing dispersible alumina and particulate alumina, the particulate alumina having a particle size greater than 1 μ m, and the proportion of dispersible alumina being between 5% and 35% by weight of the total alumina, adjusting the pH of the slurry so the slurry is of high viscosity, and spraying droplets of the slurry onto a hot metal substrate, the substrate being at a temperature between 500° and 750° C.
2. (Original) A process as claimed in claim 1 wherein the droplets comprise at least 15% solid material.
3. (Previously Presented) A process as claimed in claim 1 wherein the metal substrate comprises an aluminium-bearing ferritic steel.
4. (Previously Presented) A process as claimed in claim 1 wherein the ceramic layer also incorporates a stabiliser.
5. (Previously Presented) A process as claimed in claim 1 wherein the coated substrate is subsequently calcined.
6. (Previously Presented) A process as claimed in claim 1 wherein the layer is built up by successively spraying droplets of slurries of different compositions.

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7. (Original) A process as claimed in claim 6 wherein the compositions are such that the layer increases in porosity towards its exposed surface.

8. (Previously Presented) A process of making a catalyst, comprising coating a metal substrate with a layer of porous ceramic by a process as claimed in claim 1, and incorporating catalyst material into the ceramic layer.

9. (Original) A process as claimed in claim 8 wherein the catalyst material is a catalytic metal, and the catalytic metal is incorporated by contacting the ceramic layer with a solution of a salt of the metal in a solvent comprising an organic liquid whose surface tension and viscosity are lower than those of water.

10. (Previously Presented) A process as claimed in claim 8 wherein the ceramic layer incorporates a catalytic metal, and is then coated with wax to protect it from the atmosphere.

11. (Previously Presented) A catalyst made by a process as claimed in claim 8.

12. (New) A process as claimed in claim 8 wherein the catalyst material is a catalytic metal, and the catalytic metal is incorporated by contacting the ceramic layer with a solution of a salt of the metal, drying and then calcining the ceramic layer to convert the metal into an oxide, and then repeating the contacting, drying and calcining steps to increase the quantity of the catalytic metal present in the ceramic layer.